

# Louisiana Arbovirus Surveillance Summary 2010

CDC Week 36

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## Report Summary

As of this report, 23 human WNV infections have been identified. There are 7 asymptomatic cases, 6 identified through screening of blood donors. Of the 16 WNV cases with symptoms, 10 are classified as WNV neuroinvasive disease (NID) cases, the most severe presentation of the disease, and 6 are classified as WNV fever cases, the WNV-related mild, febrile illness. There has been 0 WNV fatalities to date in Louisiana.

There have been 0 cases of California group Encephalitis, most likely LaCrosse Encephalitis, 0 cases of Eastern Equine Encephalitis and 0 cases of St. Louis Encephalitis reported. These infections are not considered outbreaks since sporadic cases of these arboviruses often occur from year to year in the state.

### Horses:

There has been 2 confirmed cases of equine WNV and 1 confirmed case of EEE in Louisiana this year.

### Sentinel Chickens:

Sentinel chickens have been used in the past as a statewide early warning system to detect arbovirus transmission. These chickens in secure cages were strategically placed and bled regularly. Serologic tests performed on the sentinel chickens provided information of current and local transmission of many arboviruses. However, experience shows that this was not very effective in providing information about local transmission.

### Dead Birds:

Dead birds are no longer collected statewide because testing of dead birds does not provide information on where and when the bird was infected or of local transmission. Dead birds can only indicate that the bird died at a particular location of an arbovirus endemic to Louisiana. Persons who encounter dead birds in Louisiana can contact their local parish health unit or mosquito control program.

### Mosquito Pools:

This is the most effective surveillance system to monitor arboviral transmission. Arboviruses are detected through nucleic acid testing of pools of fifty or more mosquitoes of the same species. A positive mosquito pool is an indicator of recent transmission, between mosquitoes and birds, horses or humans. There have been over 13,000 mosquito pools submitted for testing. 26 SLE positive pools and 475 WNV positive pools have been found in over 25 parishes.

#### West Nile Virus (WNV) Clinical Presentation

Neuroinvasive Disease	NID	10
Fever	F	6
Asymptomatic Present Infections	PRE	7
Positive Blood Donors	PVD	6

#### Eastern Equine Encephalitis (EEE) Case

CDC Week Onset	Parish	Age	Gender

#### LaCrosse (CAL) Cases

CDC Week Onset	Parish	Age	Gender

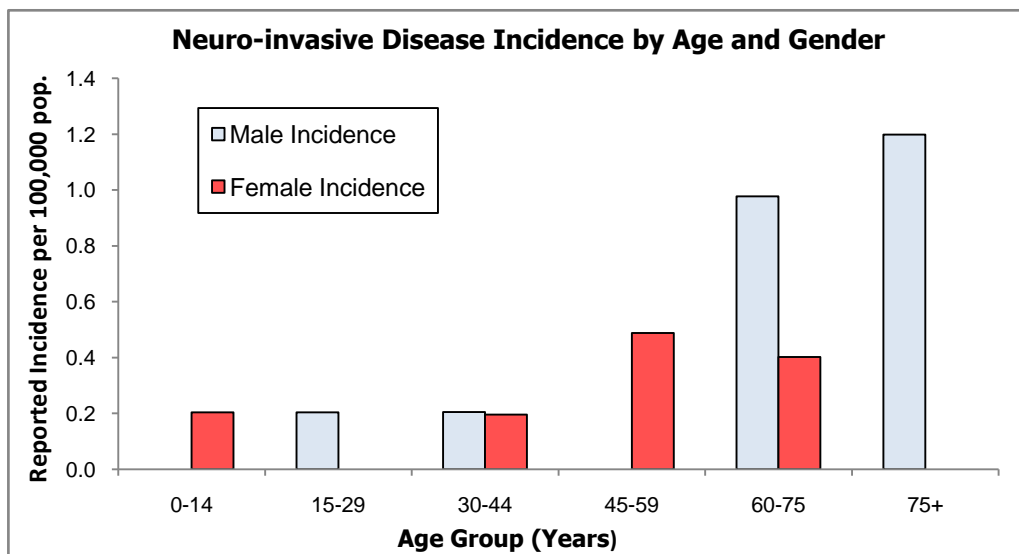
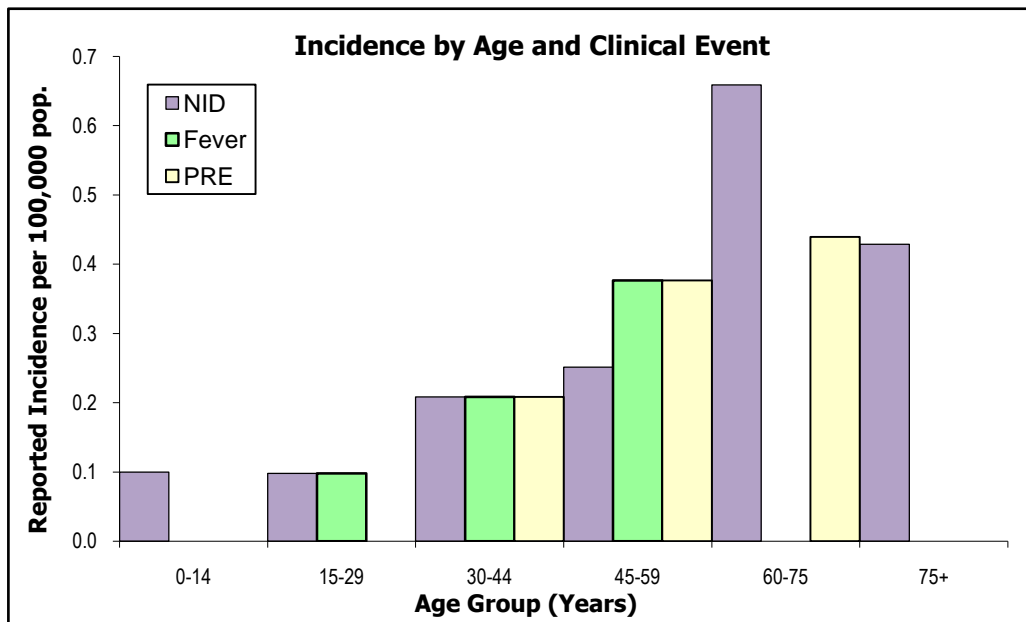
#### St. Louis Encephalitis and Fever (SLE) Cases

CDC Week Onset	Parish	Age	Gender

# WNV Human Clinical Presentation

Age Group	Clinical Classification					
	NID Cases	Incidence	Fever Cases	Incidence	PRE Cases	Deaths
0-14	1	0.1	0	0.0	0	0
15-29	1	0.1	1	0.1	0	
30-44	2	0.2	2	0.2	2	
45-59	2	0.3	3	0.4	3	
60-75	3	0.7	0	0.0	2	
75+	1	0.4	0	0.0	0	0
Undetermined						0
Total	10	0.2	6	0.1	7	0

Age Group	Neuroinvasive Disease Cases by Gender			
	Male	M Incidence	Female	F Incidence
0-14	0	0.0	1	0.2
15-29	1	0.2	0	0.0
30-44	1	0.2	1	0.2
45-59	0	0.0	2	0.5
60-75	2	1.0	1	0.4
75+	1	1.2	0	0.0
Undetermined				
Total	5	0.2	5	0.2

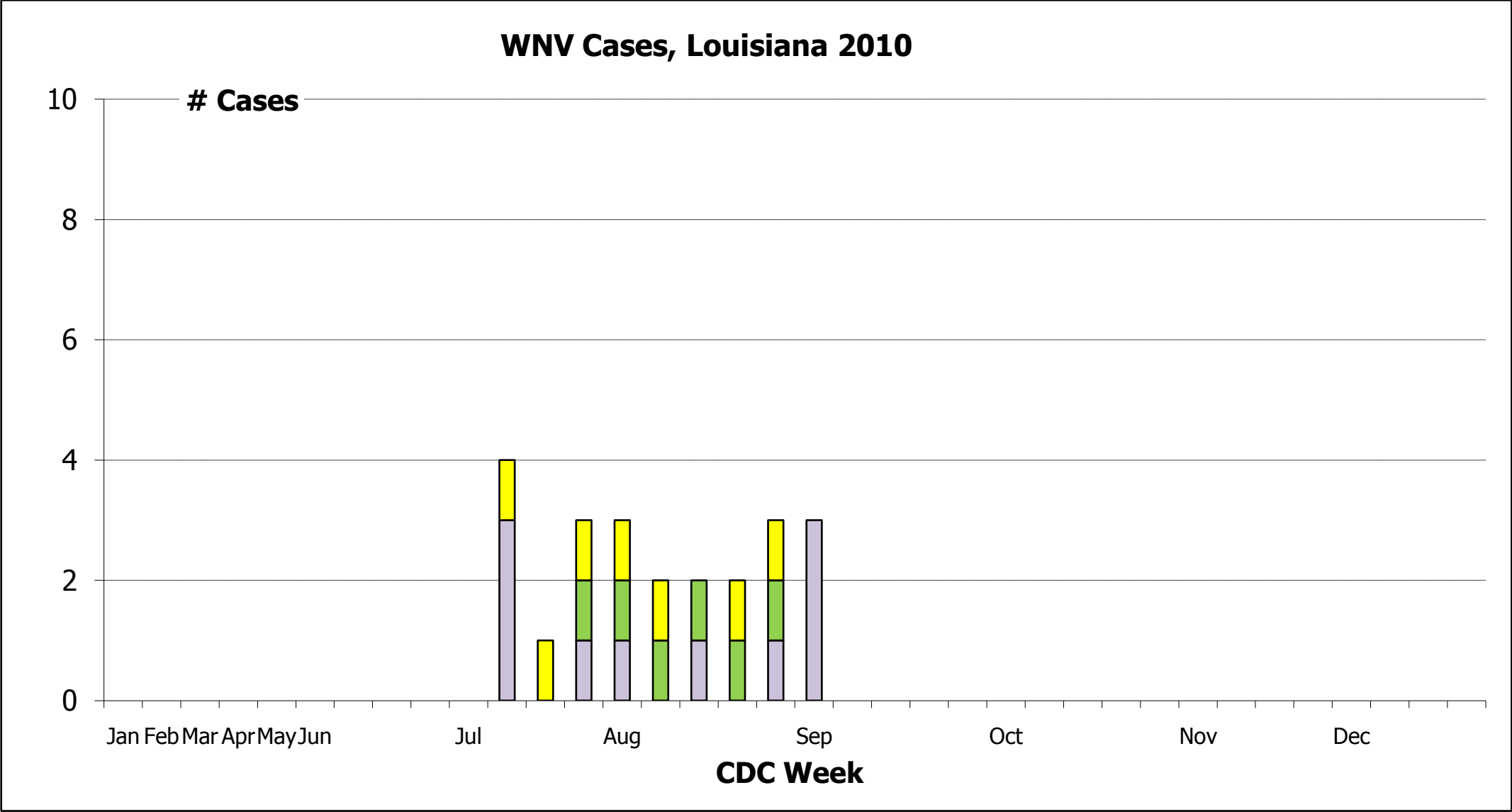


WNV-NID Infections by Parish According to CDC Week

CDC Week			1-5	6-9	10-13	14-17	18-21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52
Region	Parish	Total	Jan	Feb	Mar	Apr	May	Jun				Jul				Aug					Sep					Oct						Nov						
2	Ascension	1											1																									
2	East Baton Rouge	7											1		1	1		1		1	2																	
7	Red River	1											1																									
9	Livingston	1																			1																	
	WNV-NID Total	10	0	0	0	0	0	0	0	0	0	0	3	0	1	1	0	1	0	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

2	Ascension	5														1	1	1		1	1																
2	East Baton Rouge	1												1																							
	WNV-F Total	6	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

2	Ascension	3												1		1			1																		
2	East Baton Rouge	4											1		1		1			1																	
	WNV-PRE Total	7	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



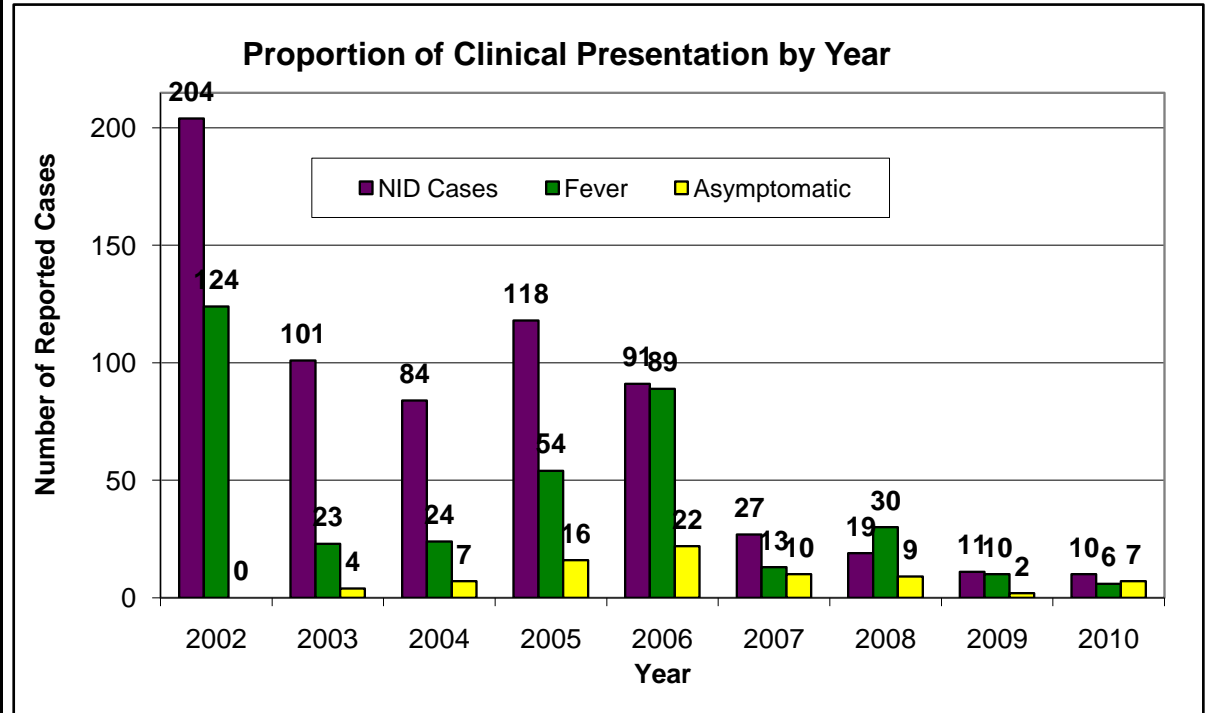
## NID by Parish 2002-Present

R e g	Parish	Reported Infections 2010				Previously Reported NID Cases							
		Incidence	NID	Fever	PRE	2002	2003	2004	2005	2006	2007	2008	2009
1	Jefferson	0.0				24	3	1	6	8	2	2	0
1	Orleans	0.0				10	2	1	6	12	2	2	0
1	Plaquemines	0.0				0	0	0	0	0	0	0	0
1	St Bernard	0.0				0	0	0	1	0	0	0	0
2	Ascension	1.3	1	5	3	6	2	1	3	10	0	0	0
2	East Baton Rouge	1.7	7	1	4	37	1	22	17	6	0	0	2
2	East Feliciana	0.0				2	1	1	0	0	0	0	0
2	Iberville	0.0				2	0	0	2	0	0	0	0
2	Pointe Coupee	0.0				6	0	0	2	0	0	0	0
2	West Baton Rouge	0.0				2	0	1	0	1	0	0	0
2	West Feliciana	0.0				0	0	0	0	0	0	1	0
3	Assumption	0.0				0	1	0	0	1	0	0	0
3	Lafourche	0.0				0	2	0	1	1	0	0	0
3	St Charles	0.0				0	0	0	0	0	0	0	0
3	St James	0.0				2	0	0	0	0	0	0	0
3	St John	0.0				2	0	0	0	0	1	0	0
3	St Mary	0.0				0	1	0	0	0	0	0	0
3	Terrebonne	0.0				0	3	0	0	0	0	0	0
4	Acadia	0.0				0	0	0	1	0	0	0	0
4	Evangeline	0.0				1	0	1	0	0	1	0	0
4	Iberia	0.0				2	1	0	4	0	0	0	0
4	Lafayette	0.0				4	0	1	1	1	1	0	0
4	St Landry	0.0				1	0	3	0	0	0	0	0
4	St Martin	0.0				0	0	0	0	0	0	0	0
4	Vermillion	0.0				0	0	0	0	1	0	0	0
5	Allen	0.0				0	0	0	0	0	0	0	1
5	Beauregard	0.0				0	0	1	1	0	1	0	0
5	Calcasieu	0.0				8	1	3	2	5	0	1	0
5	Cameron	0.0				0	1	0	0	0	0	0	0
5	Jefferson Davis	0.0				0	0	1	0	0	0	0	0

R e g	Parish	Reported Infections 2010				Previously Reported NID Cases							
		Incidence	NID	Fever	PRE	2002	2003	2004	2005	2006	2007	2008	2009
6	Avoyelles	0.0				2	0	0	0	1	1	1	0
6	Catahoula	0.0				0	1	0	0	1	0	0	0
6	Concordia	0.0				1	0	0	0	1	1	0	0
6	Grant	0.0				1	0	0	0	0	0	0	0
6	Rapides	0.0				14	2	8	7	7	2	0	1
6	Lasalle	0.0				0	0	0	0	0	0	0	0
6	Vernon	0.0				0	0	0	0	1	0	0	0
6	Winn	0.0				1	0	0	1	0	0	0	0
7	Bienville	0.0				0	0	0	0	0	0	0	0
7	Bossier	0.0				3	8	9	6	2	0	0	0
7	Caddo	0.0				5	38	8	16	3	7	3	1
7	Claiborne	0.0				0	1	0	0	0	0	0	0
7	DeSoto	0.0				0	1	0	0	0	0	0	0
7	Natchitoches	0.0				1	1	0	2	0	0	0	0
7	Red River	10.4	1			0	0	0	0	0	0	0	0
7	Sabine	0.0				1	0	0	0	0	1	0	0
7	Webster	0.0				0	0	1	0	1	0	0	0
8	Caldwell	0.0				0	0	1	0	0	0	0	0
8	East Carroll	0.0				0	0	0	0	0	0	0	0
8	Franklin	0.0				0	0	1	1	0	0	0	0
8	Jackson	0.0				0	1	0	0	0	0	0	0
8	Lincoln	0.0				0	2	0	1	0	0	1	0
8	Madison	0.0				0	0	1	0	0	0	0	0
8	Morehouse	0.0				0	2	2	1	0	1	0	0
8	Ouachita	0.0				6	2	5	15	3	1	1	0
8	Richland	0.0				2	1	1	0	0	0	0	0
8	Tensas	0.0				0	0	0	0	0	0	0	0
8	Union	0.0				1	1	1	0	0	0	0	0
8	West Carroll	0.0				0	2	2	0	0	1	0	0
9	Livingston	1.1	1			12	5	6	11	1	1	1	0
9	St Helena	0.0				0	2	0	2	0	0	0	0
9	St Tammany	0.0				27	4	0	3	14	0	3	4
9	Tangipahoa	0.0				12	6	1	2	6	1	3	1
9	Washington	0.0				6	2	0	3	4	2	0	1
	Total	0.4	10	6	7	204	101	84	118	91	27	19	11

# Human Summary 2002-Present

WNV-NID Cases by CDC Week by Year										
	Week	2002	2003	2004	2005	2006	2007	2008	2009	2010
Jan	1									
	3									
	7									
March	10									
	13									
	17									
May	19									
	20	0	0	0	0	0	0	0	0	0
	21	0	0	0	0	0	0	0	0	0
June	22	0	0	0	0	0	0	0	0	0
	23	0	0	0	0	0	0	0	0	0
	24	2	0	0	0	0	0	0	0	0
	25	2	2	0	0	0	0	0	1	0
July	26	11	0	0	0	1	0	0	1	0
	27	6	3	3	4	1	0	0	2	3
	28	9	5	2	5	4	0	0	0	0
	29	23	5	2	13	5	0	0	1	1
August	30	23	8	8	8	6	0	2	1	1
	31	21	10	5	21	7	1	1	0	0
	32	24	7	15	11	14	3	2	1	1
	33	21	8	7	9	13	2	1	2	0
	34	14	6	3	8	7	2	3	1	1
September	35	8	6	5	6	6	5	3	0	3
	36	13	4	5	8	9	3	2	0	0
	37	8	9	3	9	6	3	0	1	0
	38	6	4	4	2	3	1	0	0	0
	39	3	2	5	4	4	1	0	0	0
October	40	3	4	5	4	1	3	3	0	0
	41	3	2	4	3	1	0	0	0	0
	42	3	1	2	3	1	0	0	0	0
	43	0	2	0	0	0	3	0	0	0
	44	0	4	0	0	1	0	0	0	0
November	45	0	2	2	0	0	0	1	0	0
	46	0	1	1	0	0	0	0	0	0
	47	1	1	2	0	1	0	1	0	0
	48	0	2	1	0	0	0	0	0	0
December	49	0	3	0	0	0	0	0	0	0
	50	0	0	0	0	0	0	0	0	0
	51	0	0	0	0	0	0	0	0	0
	52	0	0	0	0	0	0	0	0	0
NID Total		204	101	84	118	91	27	19	11	10

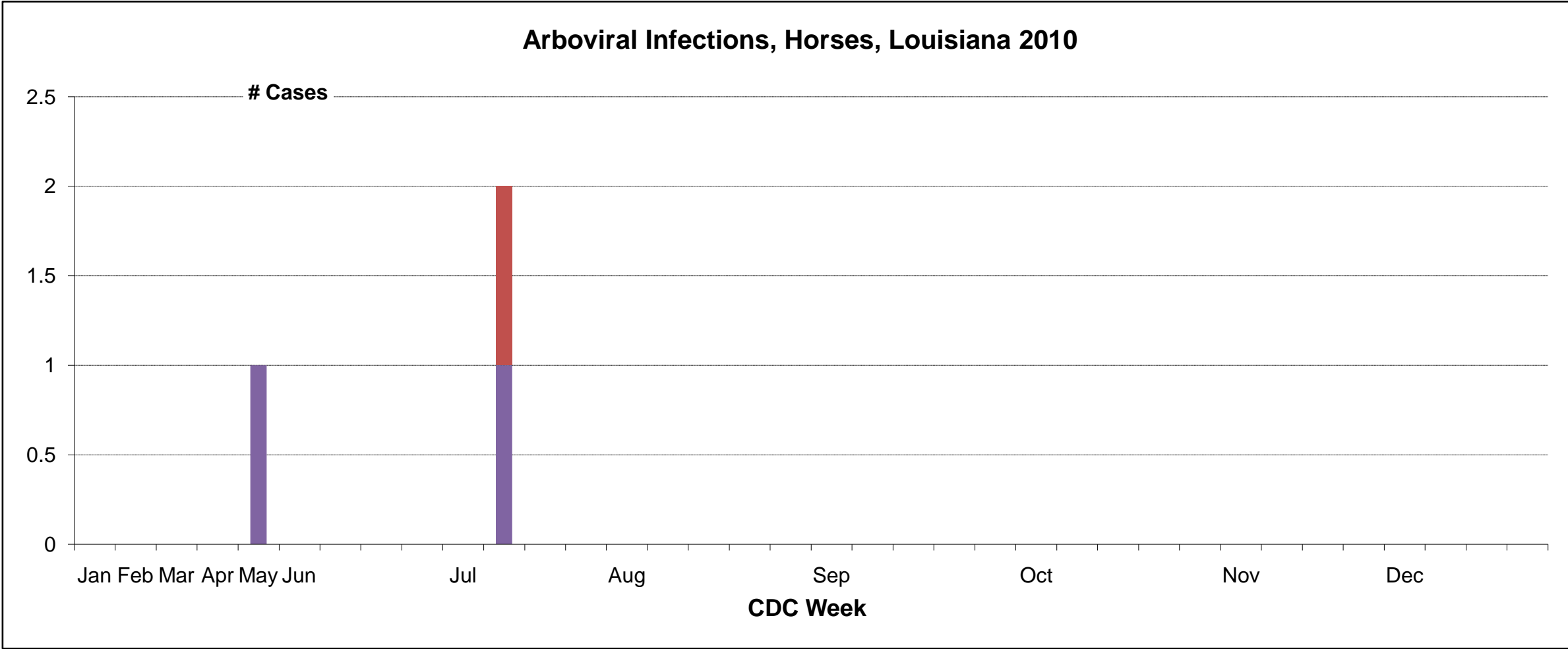


Total Human WNV Clinical Presentation by Year									
	2002	2003	2004	2005	2006	2007	2008	2009	2010
NID Cases	204	101	84	118	91	27	19	11	10
Fever	124	23	24	54	89	13	30	10	6
Asymptomatic	NA	4	7	16	22	10	9	2	7
Proportion of NID/F	0.62	0.81	0.78	0.69	0.51	0.68	0.39	0.52	0.63

Arboviral Horses

CDC Week			1-5	6-9	10-13	14-17	18-21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52
Region	Parish	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec																								
3 7	St James	1							1																													
	Caddo	1				1																																
	Undetermined	0																																				
	WNV-Horses Total	2	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

3 7	St James	1							1																									
	Caddo	0																																
	Undetermined	0																																
	EEE-Horses Total	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



<b>CDC Week</b>	<b>Week Starting</b>	<b>Week Ending</b>
01	01/03/10	01/09/10
02	01/10/10	01/16/10
03	01/17/10	01/23/10
04	01/24/10	01/30/10
05	01/31/10	02/06/10
06	02/07/10	02/13/10
07	02/14/10	02/20/10
08	02/21/10	02/27/10
09	02/28/10	03/06/10
10	03/07/10	03/13/10
11	03/14/10	03/20/10
12	03/21/10	03/27/10
13	03/28/10	04/03/10
14	04/04/10	04/10/10
15	04/11/10	04/17/10
16	04/18/10	04/24/10
17	04/25/10	05/01/10
18	05/02/10	05/08/10
19	05/09/10	05/15/10
20	05/16/10	05/22/10
21	05/23/10	05/29/10
22	05/30/10	06/05/10
23	06/06/10	06/12/10
24	06/13/10	06/19/10
25	06/20/10	06/26/10
26	06/27/10	07/03/10
27	07/04/10	07/10/10
28	07/11/10	07/17/10
29	07/18/10	07/24/10
30	07/25/10	07/31/10
31	08/01/10	08/07/10
32	08/08/10	08/14/10
33	08/15/10	08/21/10
34	08/22/10	08/28/10
35	08/29/10	09/04/10
36	09/05/10	09/11/10
37	09/12/10	09/18/10
38	09/19/10	09/25/10
39	09/26/10	10/02/10
40	10/03/10	10/09/10
41	10/10/10	10/16/10
42	10/17/10	10/23/10
43	10/24/10	10/30/10
44	10/31/10	11/06/10
45	11/07/10	11/13/10
46	11/14/10	11/20/10
47	11/21/10	11/27/10
48	11/28/10	12/04/10
49	12/05/10	12/11/10
50	12/12/10	12/18/10
51	12/19/10	12/25/10
52	12/26/10	01/01/11